Abstract of the Disclosure

The invention relates to a method for identifying and choosing a shortest path segment that has an alternate edge disjoint path segment. While routing Unidirectional Path Switched Ring (UPSR) path segments in a graph, there may be several equal distance paths to choose the shortest path from. Choosing a certain path as the shortest path may minimize or eliminate the chance of finding an alternative path segment. The invention presents a method such that if multiple shortest paths from the source node to a particular destination node exist, the method selects the shortest path which has an alternate edge disjoint path, and which can be used for path protection. The particular shortest path chosen by the method is not necessarily the first shortest path constructed.

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